

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Sierra Pacific Power Company - Tracy Power Generating Station
6226 West Sahara Avenue, MS 30
Las Vegas, Nevada 89146

Permit Number: NEV97023

Description of Facility: Completed construction upgrades include additional combined cycle units 8, 9, and 10 that have been added to the Tracy Generating Station. Additionally the decommissioning and removal of the Tracy evaporation pond is completed and out of service. All previous discharges to this pond have been rerouted to the 6 acre geotextile lined Piñon Pine evaporation pond. A 40 acre, compacted native soil lined Tracy cooling water pond designed to provide a closed-loop cooling system for the original Tracy 1 and 2 facility units, now also supplies water to the cooling tower of Tracy 3 and the Piñon power block, the Piñon Pine cooling tower, and the Tracy Combined Cycle Units 8, 9, and 10 CTG Evaporative Coolers and their auxiliary cooling systems, and service water for the facility. Water is recycled as many times as is feasible to conserve water. Well water is also used in non-contact cooling water circulating systems on Tracy units 1 and 2. The cooling water pond also provides a source of water for fire suppression systems both at Tracy and the nearby Duraflex facility during any fire emergencies. Cooling pond water is also used onsite for dust suppression.

Location: Tracy Power Generation Station
191 Wunotoo Road
Storey County, McCarran, Nevada 89434
17 miles East of Reno, I-80 exit #32

Outfall 001 - Tracy Cooling WaterPond:
Latitude: 39E 33' 54" N; Longitude: 119E 31' 34" W

Outfall 002 - Tracy Evaporation Pond has been decommissioned and removed from service.

Outfall 003 - Piñon Pine Evaporation Pond:
Latitude: 39E 33' 27" N; Longitude: 119E 31' 34" W

Outfall 004- Onsite dust suppression, sites vary.

Discharge Characteristics:

Tracy Cooling Water Pond - 001: is a large pond supplied by water pumped from the Truckee River, stored therein, and from which water is drawn, used and or recycled for cooling systems, or is used on site for dust suppression and fire protection. Waters recycled to the cooling water pond include non-contact cooling water, water from Tracy 3 cooling tower blow down, and stormwater runoff (roof and surface areas).River water is pumped and or drawn into the pond to make up for evaporative losses on an as needed

basis. Cooling water is used on site for dust suppression as Outfall 004.

Piñon Pine Evaporation Pond - 003: is lined with PolyNet 3000 which channels any liner leaks to a leak detection sump. This sump is inspected routinely, with sampling quarterly. The 6 acre pond meets the zero discharge standard performance criteria, with no discharge to groundwater; disposal is via evaporation. Wastewaters discharged to this pond include: concentrated brine solution from the Reverse Osmosis (RO) System, high TDS wastewaters from the Boiler Blow Down Tanks from Tracy 1, 2, and 3, Sample Table Drain waste and online analyzer waste at Tracy 3, facility drains (floor and sink), and chemical cleaning wash waters.

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Flow: 30-Day average Flow 3.125 MGD ; daily maximum is also 3.125 MGD
Monitor and Report discharges into each pond

Parameters:

Cooling Water Pond: TDS, TSS, pH, Monitored Quarterly
Priority Pollutant Metals Scan, Oil & Grease and TPH Monitored Annually

Evaporation Pond: TDS, pH, Sulfate Monitored Annually
Priority Pollutant Metals Scan, Nitrogen, Oil & Grease, TPH Monitored Annually

General: Sierra Pacific Power Company (SPPC) operates the Tracy Power Generation Station. The total Station generating capacity is 505 megawatts (MW), with all units operating on natural gas, with some units having the ability to also operate on diesel and or heavy fuel oil. Electric generators are driven by combustion and steam turbine units. The power station's current power production consists of the Tracy Unit I, built in 1962, which produces 55 MWs, the Tracy Unit II, built in 1967, produces 85 MWs, the Tracy Unit III, built in 1975, produces 110 MWs, the Clark Mountain 3 and 4 combustion turbines were added in 1994 and individually produce 83 MW of power each. The Piñon Pine (unit #4) combined cycle power plant, dedicated in April 1998, generates 106 MWs combining steam and gas turbines, and the Tracy combined cycle units 8, 9, and 10 generate 1,XXX MWs. There are four units with three cooling towers. The Piñon Waste Concentration Tower has been removed and replaced by the new RO system which provides purified water which can be reused in several of the facility's cooling towers or other water using systems. This recycling of water reduces the quantity of waste water, thus reducing the quantity sent to the evaporation pond. Additionally, the TPGS has a fuel storage facility, a fire protection system; rail facilities; roads; transmission switch yard facilities; and warehouses, machine shop, laboratory and an administration building.

The Permittee has applied for a permit to continue discharges of the facility wastestreams to either the evaporation pond for disposal via evaporation, or the non-contact cooling waters and waters of similar chemistry that are discharged into the cooling water pond for future reuse/recycling; river water and or groundwater from wells are used to supplement the cooling pond on an as need dictates. Cooling water is authorized for use in dust suppression on site. Domestic sewage generated on site is discharged to septic systems.

Monitoring wells have been installed for water quality monitoring and the Piñon Pine evaporation pond has a leak detection system installed. Monitor wells 1 -4, and MW-9 were for the old decommissioned Tracy pond, and have been properly abandoned. Domestic water is provided by onsite wells.

Receiving Water Characteristics: Groundwater in the area meets drinking water standards. Within the stratigraphy of the site there are coarse grained moderately to highly permeable, horizontally bedded unconsolidated sedimentary strata with interbeds of fine grained (low permeability) strata within the narrow river basin bounded by altered volcanic and sedimentary bedrock. There are several water bearing zones underlying the plant site, one of which the water supply wells for the plant are screened. There is a cemented gravel and cobble horizon within this interbedded sequence which extends under a portion of the facility. Depth to the shallow groundwater is approximately between eleven and thirty eight feet across the site. Adverse effects to the groundwater are not expected. Groundwater monitoring is required to ensure that groundwater quality is not adversely affected. MW5, MW7, MW8 around cooling water pond, and MW12 upgradient of site, are monitored quarterly.

Procedures for Public Comment:

The notice of the Division's intent to reissue a permit authorizing the facility to discharge both to the zero-discharge lined Piñon Evaporation Pond, to the native soil lined cooling water pond and to the groundsurface for dust control subject to the conditions contained within this permit, and the Operations and Management Plan is being sent to the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the publication date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing scheduled by the Administrator must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination

The Division has made the tentative determination to reissue the proposed permit.

Proposed Monitoring, Schedule of Compliance and Special Conditions

	CP Outfall 001	EP Outfall 003
Flow:	Monitor & Report	Monitor & Report
TDS:	Monitor & Report	Monitor & Report
TSS:	Monitor & Report	
SODIUM:	Monitor & Report	
SULFATE:		Monitor & Report
TOTAL NITROGEN as N:		Monitor & Report
NITRATE as N		Monitor & Report
pH:	Monitor & Report	Monitor & Report
OIL & GREASE:		
	Monitor & Report	Monitor & Report
TPH:	Monitor & Report	Monitor & Report

PRIORITY POLLUTANT

METALS SCAN:

Monitor & Report

Monitor & report

Outfall 004 Monitor & Report Flow/quantity only.

Rationale for Permit Requirements

Groundwater Monitoring is required to ensure that groundwater quality is not adversely affected; pond monitoring is required in order to characterize the water contained in the evaporation pond and the cooling water pond.

Prepared by: Icyl C.Mulligan
(2008)

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